CASE STUDY #4

HMO BACKGROUND

- This HMO identified the diabetes prevalence of its members at 2.3%.
- The HMO cited research indicating that members with diabetes could be expected to incur health care expenditures four times higher than members without diabetes and found that health care payments for members with diabetes accounted for nearly 11% of total payments.
- The HMO reviewed state statistics from the Department of Health & Family Services that revealed a high rate of hospitalization within the service region where the majority of its members lived.
- Based on the prevalence and seriousness of diabetes complications, this HMO identified the opportunity to improve diabetes management within its membership.
- The HMO staff strives to continually modify and enhance its Diabetes Disease Management Program that was initially implemented in 1997. Details about the Program are located in the intervention sections of this summary.
- The HMO participated in a state-wide initiative to develop uniform diabetes clinical practice guidelines for medical providers (e.g., ***Essential Diabetes Mellitus Care Guidelines)***.

METHODOLOGY

The HMO used HEDIS® 2000 methodology to assess baseline data for two Comprehensive Diabetes Care Measures: eye exam performed and one or more A1c test.

BASELINE FOR SELECTED HEDIS â COMPREHENSIVE DIABETES CARE MEASURES

	Diabetes eye exam performed	One or more A1c test
Baseline, HEDIS® 2000 (CY 1999 data)	68%	75%

BASELINE BARRIER ANALYSIS

A workgroup of network providers and the HMO staff (including the medical director of Quality Improvement and Care Management, the director of the QI Department, and senior analysts from Healthcare Informatics) identified barriers to improving the management of diabetes. The Health Promotion and Intervention Subcommittee (including those previously mentioned plus the Chief Medical Officer, the Quality Coordinator, and the Manager of Disease Management) further analyzed barriers using **cause and effect** techniques. Barriers thought to have the greatest impact included:

- Pertinent diabetes data were not readily available.
- The HMO lacked a consistent set of guidelines to help providers identify an acceptable level of blood glucose control.
- Providers had inadequate knowledge of the recommended frequency for blood glucose testing and diabetes retinal exams.
- Providers failed to recommend diabetes exams.
- Members with diabetes lacked an understanding of the importance of routine and continuous A1c tests and annual diabetic eye exams.
- Members failed to have an annual eye exam due to fear or anxiety of the procedure.
- Members were unaware of the serious nature of diabetes and its complications.

BASELINE INITIAL INTERVENTIONS

The Diabetes Disease Management Program staff, Pharmacy Services, and the Clinical Practice Guidelines Subcommittee planned the interventions.

- The ***Guidelines***, including the recommendations for A1c testing and diabetes eye exams, were adopted, distributed, and posted on the HMO's website. The QI Department conducted medical record reviews at provider offices with deficiencies in care.
- The HMO distributed the ***Guidelines*** with a **Physician Practice Survey** to family medicine, general medicine, internal medicine, OB/GYN, and pediatric physicians.
- The HMO initiated a mailing to 3 large **business entities** deficient in recommendations for A1c testing. The mailing included the ***Guidelines*** and a **blinded graph** that identified the entity's rates compared to the HMO-wide norm.
- The HMO sent **quarterly newsletters** to **all network providers** that included **HEDIS â results** for the diabetes care measures and **articles** promoting diabetes management and routine exams.
- The HMO sent letters to PCPs that identified members with diabetes who were eligible for the **Diabetes Disease Management Program**.
- The HMO sent member-versions of the ***Guidelines***, wallet card **reminders**, promoting A1c testing and diabetes eye exams to all members with diabetes.
- Members were invited to participate in the **Diabetes Disease Management Program** for education about A1c testing, the importance of screening exams, and promotion of self-management skills. Members received:
    - Written and telephone invitations to the Program;
    - An **introduction survey** via the telephone, Internet, or in writing;
    - Free at-home A1c testing kits **and 3 assessment surveys** over 9-12 months. The survey and test results were forwarded to their providers;
    - Educational materials **tailored to the survey responses**.
- All members with diabetes received **quarterly educational newsletters** to promote a better understanding about the importance of routine and continuous A1c and annual eye exams.
- The HMO sent Member newsletters to **all member households** (not just those with diabetes) that included **article**s about **diabetes management** (e.g., "Diabetes: Tests and Exams That Could Save Your Life", etc.).

RE-MEASUREMENT #1 using HEDIS® 2001 methodology revealed increases in the eye exam and A1c testing measures. This success was attributed to the HMO's diabetes self-management program in which 47% of members completing the full program decreased their A1c values by one to two percent. About 82% of participants indicated that the program helped them improve management of their diabetes. The overall program satisfaction rate was "good" to "excellent".

SELECTED HEDIS â COMPREHENSIVE DIABETES CARE MEASURES

	Diabetes eye exam performed	One or more A1c test
Baseline, HEDIS® 2000 (CY 1999 data)	68%	75%
HEDIS® 2001(CY 2000 data)	81%	81%

RE-MEASUREMENT #1 BARRIER ANALYSIS

The Health Promotion and Intervention Subcommittee used **fishbone diagramming and rank order techniques** to identify **two additional barriers** to improving self-management skills and health outcomes.

- The HMO lacked a member incentive for participation in the Diabetes Disease Management Program.
- The HMO lacked a diabetes registry to consistently track and coordinate activities between members, providers, and the Diabetes Disease Management Program.

INTERVENTIONS SUBSEQUENT TO RE-MEASUREMENT #1

The HMO made the decision to **focus on improving member self-management skills rather than on physician interventions and education**. Efforts were targeted at increasing member and provider awareness of the Diabetes Disease Management Program through development of a **registry** and development of **incentives** for improving self-management skills.

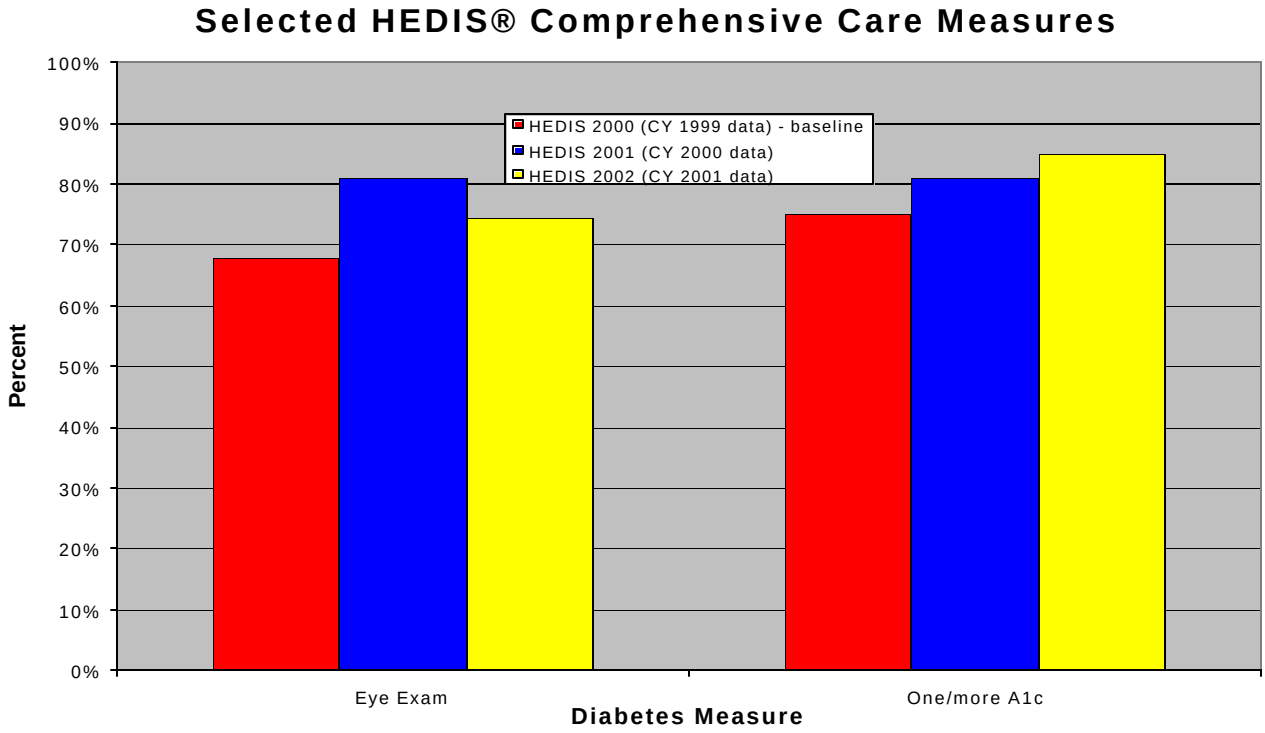
- The HMO conducted an **on-site medical record review** to identify members deficient in LDL-C testing and then distributed **cholesterol screening protocols and coronary heart disease risk-specific preventive guidelines** to PCPs and members who were deficient in LDL-C screenings.
- Members received an educational letter and a pamphlet, "Understanding and Controlling Cholesterol." PCPs received an educational letter, the cholesterol pamphlet, and reports about their patients who were deficient in LDL-C testing.
- The HMO also sent letters, the ***Guidelines***, and blinded results to the **medical directors of physician groups and clinics** that had **lower** screening results than the HMO-wide norm.
- The HMO participated with the **WI Collaborative Diabetes Eye Care Initiative** to improve communication between statewide eye care specialists and PCPs and to increase diabetes eye exam rates.
- The HMO staff **evaluated** its Diabetes Disease Management education programs to determine next steps.
- The HMO offered a comprehensive self-management program **targeted at members** with diabetes who had **A1c levels greater than nine percent**.
- The HMO initiated an **in-home communication pilot program** to promote self-monitoring and education for high-risk members with diabetes. The program was expanded after the successful pilot. Mailings promoting the options of the Diabetes Disease Management Program, including a new in-home communication interactive device, were sent to members with diabetes and their PCPs.
- The HMO continued to provide **educational mailings** to members and providers.

RE-MEASUREMENT #2

Measurement remained consistent with HEDIS® 2002 methodology. The A1c measure continued to show improvement, however, the rate of diabetes eye exams decreased from the previous measurement year.

SELECTED HEDIS® COMPREHENSIVE DIABETES CARE MEASURES

	Diabetes eye exam performed	One or more A1c test
Baseline, HEDIS® 2000 (CY 1999 data)	68%	75%
HEDIS® 2001 (CY 2000 data)	81%	81%
HEDIS® 2002 (CY 2001 data)	74.5%	85%



RE-MEASUREMENT #2 BARRIER ANALYSIS

The Health Promotion and Intervention Subcommittee analysis identified these barriers:

- There was a lack of coordination between PCPs and specialists (e.g., ophthalmologists, cardiologists, and behavioral health providers) in ordering and sharing screening test results and evaluations.
- There was a lack of physician support for member self-management skills.
- The HMO lacked a centralized laboratory provider to track diabetes screenings and results.
- Contractual issues led to a delay in transitioning participants in the Diabetes Disease Management Program to new program options.
- Members with co-morbidities often required immediate attention.
- Previously identified barriers were also mentioned.

INTERVENTIONS SUBSEQUENT TO RE-MEASUREMENT #2

- The HMO continues to **refine its Diabetes Disease Management Program** and enroll additional members. The Program recognizes that each member is unique in their illness, in the way they learn, and in the issues they face with diabetes. Interventions continue to be built on this philosophy, as well as on the stratification of each member's disease severity and their current self-management skills.
    - **Current Stratification of Disease Severity Guidelines categories** include:
        - **Mild at Risk**: member has an A1c level of less than 8%, no hospitalizations or emergency room visits in the past 6-12 months, regular self-monitoring of blood glucose levels, and compliance with a majority of the recommended care guidelines developed by the American Diabetes Association (ADA) and the Wisconsin Diabetes Advisory Group (DAG)
        - **Moderate at Risk**: member has an A1c level between 8% and 9.4%, recent use of inpatient or emergency room resources, blood pressure that is greater than 130/85 while on treatment, and less than optimal compliance with the recommended care guidelines developed by the ADA and the DAG

        - **Severe at Risk**: member has an A1c level greater than 9.4%, recent use of inpatient or emergency room resources, blood pressure greater than 130/85 and not on treatment, and less than optimal compliance with the recommended care guidelines developed by the ADA and the DAG
        - Disease severity is determined after members complete a disease-specific survey, based on the **TyPE Specification DIABETES questionnaire from the Health Outcomes Institute**. The assessment is completed either by telephone interview or through the mail.
        - Disease severity is **re-stratified with each clinical contact** and is tracked in the Disease Management database for use as an outcome measure.
- **Current interventions for the Diabetes Disease Management Program** include:
    - Quarterly newsletters to **reinforce** opportunities for self-management
    - Network **referrals and linking members to resources**
    - Behavioral health referrals for depression or other concerns
    - **E-health Technology**
        - This is a **daily, six-month program** used for members with A1c levels equal to or above **9.5%,** members who have a **new diagnosis** of diabetes, or **members who are at risk** due to education and self-management deficits.
        - The process uses an electronic, non-Internet dependent, 2-way communicative device that allows members to receive and send health related information to the Diabetes Disease Management Program.
        - Members receive **daily "dialogues**" that collect clinical information and provide education and support with self-management skills.
        - Members who represent health risks (based on their responses) receive **targeted phone calls** to address identified issues.
        - The program offers educational materials, in-home A1c test kits, and primary care physician follow-up to participants.
    - **Interactive Voice Response** (IVR) Programs to assess members and the impact of their disease
        - The diabetes IVR program consists of **6 calls over 8 month**s and is used primarily in situations where members aren't able to participate in network resource programs.
        - **Personalized education** is sent to each program member, **based on responses** to each contact with the IVR program.
        - **PCPs receive reports of each call** their patient competes, allowing the PCP to assess their status between office visits.
    - **Disease Case Management**
        - The program provides **intensive, repetitive interventions** to members **with moderate persistent to severe persistent** disease.
        - The program provides **coordination of and access to services**, **facilitates communication among providers, and enhances member education and self-management skills**.
        - Frequency of case management contact is **based on member n**eeds.
- The HMO continues its activities to **assess population trends and results of its diabetes self-management programs.**
    - **Annual surveys assess member satisfaction** with programs and contacts with disease management staff.
    - **Change of disease severity is monitored over tim**e (e.g., severity at the time of diagnosis compared to severity after enrollment in the Diabetes Disease Management Program).
    - **Additional clinical parameters** (e.g. frequency of physical activity, frequency of self-monitoring of blood glucose, A1c levels) **are assessed** at every clinical contact and collected and reported annually.
    - Financial and utilization outcomes are evaluated annually. This includes an analysis of medical and pharmacy claims to review utilization of emergency room services, in-patient admissions,

distribution and place of service for health care claims, and total health care costs for members with diabetes.

- HEDIS® Comprehensive Diabetes Care measures are analyzed and reviewed.

Previous interventions aimed at educating members and providers (e.g., distribution of wallet cards and Guidelines, newsletters, reminder letters, provider reports, etc.) are continued.

LESSONS LEARNED
• Selected diabetes care measures improved after distribution of the *Guidelines* and the implementation of the HMO's Diabetes Disease Management Program.
• Ongoing evaluation of the HMO's Diabetes Disease Management Program provides valuable information to continue to enhance the program and improve diabetes care measures.
• Satisfaction surveys are useful in evaluating the utility and success of member interventions.
• Members participating in the Diabetes Disease Management Program options lowered their A1c by one to two percentage points.
• Stratifying members into risk groups helps the HMO tailor interventions appropriate for targeted groups.

No tools were included with this summary.

CASE STUDY #5

HMO BACKGROUND

This HMO's decision to enhance efforts towards improving diabetes care was based on the following:

- Diabetes is one of the most costly and highly prevalent chronic diseases in the United States.
- Approximately half of the 16 million diabetics in Americans are unaware that they have the disease.
- Diabetes complications cost the country nearly $100 billion a year. Many complications, such as amputations, blindness and kidney failure can be delayed or prevented if they are addressed at an early stage.

METHODOLOGY

The HMO used **HEDIS â 1999 methodology** to assess the six Comprehensive Diabetes Care Measures: one/more A1c, A1c poor control (>9.5%), eye exam performed, LDL-C screening performed, LDL-C control (< 130/mg/dl), and nephropathy monitoring.

BASELINE HEDIS® COMPREHENSIVE DIABETES CARE MEASURES

	Diabetes eye exam performed	LDL-C screening performed	LDL-C control (<130 mg/dl)	Nephropathy monitoring	One or more A1c tests	A1c poor control (>9.5%) ❖
Baseline, HEDIS® 2000 (CY 1999 data)	47.2%	75.2%	42.7%	22.4%	79.7%	47.5% ❖

❖ Lower percent desired

BASELINE BARRIER ANALYSIS

The Quality Improvement Team (QI Team), comprised of a Family Practice Physician, the RN Quality Manager, and the RN Quality Improvement Coordinator reviewed the baseline data and used brainstorming techniques to identify the following barriers:

- The HMO lacked clinical practice guidelines for diabetes.
- The HMO lacked a database of members with diabetes.
- Members with diabetes had an inadequate understanding of importance of good control.
- There was no health management program for members with diabetes.

BASELINE INITIAL INTERVENTIONS

- The HMO developed a diabetes database of all members with diabetes meeting HEDIS® specifications and developed a Diabetes Health Management Program.
- The plan identified high-risk members (e.g., A1c >9%) for targeted mailings and reminders.
- The HMO sent lists of diabetes members specific to each provider, along with information about the Diabetes Health Management Program.
- The quality manager contacted high-risk members (e.g., A1c >9%, etc.) by telephone quarterly or as needed to offer encouragement and help them with self-management needs.
- The HMO adopted and distributed the Wisconsin-specific ***Essential Diabetes Mellitus Care* Guidelines *(Guidelines).***

RE-MEASUREMENT #1 was consistent with **HEDIS® 2000 methodology** for the Comprehensive Diabetes Care Measures and revealed improvements in each of the measures.

HEDIS® COMPREHENSIVE DIABETES CARE MEASURES

	Diabetes eye exam performed	LDL-C screening performed	LDL-C control (<130 mg/dl)	Nephropathy monitoring	One or more A1c test	A1c poor control (>9.5%) ❖
Baseline, HEDIS® 2000 (CY 1999 data)	47.2%	75.2%	42.7%	22.4%	79.7%	47.5% ❖
HEDIS® 2001 (CY 2000 data)	54.5%	77.5%	45.7%	31.8%	83.7%	36.5% ❖

❖ Lower percent desired

RE-MEASUREMENT #1 BARRIER ANALYSIS by the QI Team revealed the following issues:

- Members with diabetes had an inadequate understanding of the importance of good control.
- There was a lack of feedback for providers regarding the status of care of members with diabetes.
- The HMO lacked an outreach system to contact members with diabetes.
- Providers were not complying with the HMO approved ***Guidelines.***

INTERVENTIONS SUBSEQUENT TO RE-MEASUREMENT #1

- The HMO expanded its Diabetes Case Management Program [**tools #1, #2**].
- The HMO sent revised ***Guidelines*** to all providers.
- The database was updated to include 24 months of claims data to better identify members with diabetes.
- The HMO developed provider profiles with member specific data to indicate their compliance with the ***Guidelines*** and information that was missing from HEDIS® audits.
- Providers were notified of their members who had A1c testing >9% in the previous year and those who did not have A1c testing in the past 4-6 months.
- The HMO informed providers of their members who were eligible for the educational program and for case management.
- The Quality Improvement Coordinator provided targeted mailings (e.g., reminder letters to those lacking A1c testing and eye exams, education materials, etc.) to high-risk members with diabetes.
- The HMO sent personal diabetes care cards to members to remind them of the care recommendations and to record their tests, exams, and goals.
- The HMO provided a seminar about diabetic eye disease for members.

RE-MEASUREMENT #2 DATA using HEDIS® 2001 for the Comprehensive Diabetes Care Measures revealed continued improvements in each of the measures.

HEDIS® COMPREHENSIVE DIABETES CARE MEASURES

	Diabetes eye exam performed	LDL-C screening performed	LDL-C control (<130 mg/dl)	Nephropathy monitoring	One or more A1c test	A1c poor control (>9.5%) ❖
Baseline, HEDIS® 2000 (CY 1999 data)	47.2%	75.2%	42.7%	22.4%	79.7%	47.5% ❖
HEDIS® 2001 (CY 2000 data)	54.5%	77.5%	45.7%	31.8%	83.7%	36.5% ❖
HEDIS® 2002 (CY 2001data)	60.4%	82.3%	55.6%	49.5%	85.7%	27.4% ❖

❖ Lower percent desired

RE-MEASUREMENT #2 BARRIER ANALYSIS

The QI Team expanded to include the HMO Medical Director, a Nephrologist, a Case Manager, a Data Analyst, and a Family Practice Physician. The QI Team reviewed the data and brainstormed to identify the following ongoing and new barriers:

- Members with diabetes had an inadequate understanding about the importance of good control.
- There was a lack of provider feedback regarding the care status of members with diabetes.
- There were issues with identification of members with diabetes.
- The HMO still lacked an outreach system to contact members.
- The HMO lacked access to laboratory data for all members with diabetes.

INTERVENTIONS SUBSEQUENT TO RE-MEASUREMENT #2

- The HMO continued to expand its Case Management Program. The Case Manager sent targeted mailings to high-risk members and called those enrolled quarterly to encourage compliance with recommended testing and care, provide education, and answer questions.
- The Quality Improvement Coordinator received notices of new members with diabetes from the data warehouse to facilitate early enrollment into case management. Approximately 20% of members with diabetes receive case management services.
- The HMO extended the claims analysis period to identify members with diabetes that don't see physicians regularly and obtained monthly reports of new members with diabetes.
- The Case Manager sent a list of members with diabetes from the active database to the lab. The lab then matched the list with its data and returned testing results to the Case Manager.
- The HMO was able to obtain laboratory information on a monthly basis from plan-affiliated labs and used the data for reminder and case management purposes.
- The Case Manager entered clinical information from the HEDIS® audits into the diabetes database. This helped the HMO expand the provider profiles of member-specific data and lab results for A1c, triglycerides, LDL-C, HDL, macroalbuminuria and microalbuminuria, height, weight, blood pressure, diabetic eye exams, smoking status, and nurse case management notes. Providers gave positive feedback on these reports.
- Staff from several physician offices started to call patients to remind them of needed services.
- The HMO provided unlimited diabetes education visits.
- The HMO surveyed members with diabetes **[tool #3]** who had been involved in the Case Management Program for the past year and received a 37% response rate. Findings included:
  - Most agreed that the telephone calls helped them manage their diabetes and reminded them to make appointments for their yearly eye exam and to get A1c tests done more frequently than in the past.
  - Most felt that the diabetes health management nurse was able to answer their questions and that educational materials were helpful, easy to understand, and helped them manage their diabetes.
  - Less than half indicated they had attended one of the diabetes education seminars offered by the HMO.

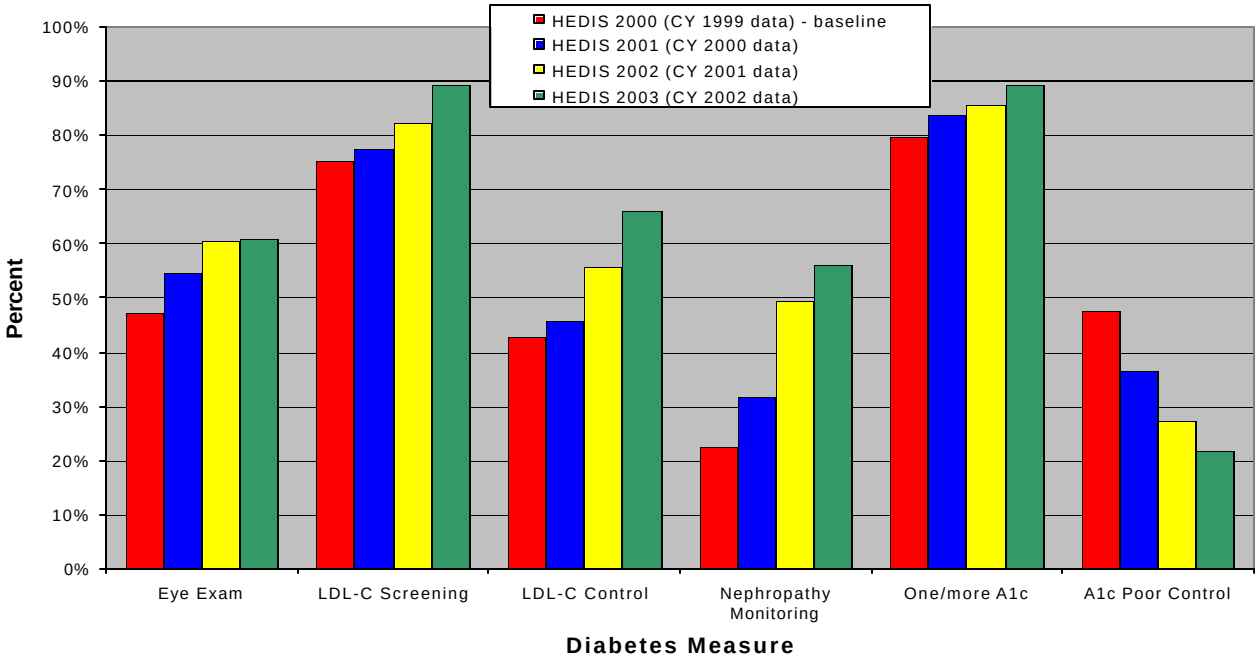
SUBSEQUENT RE-MEASUREMENTS #3 AND #4 using **HEDIS® methodology revealed continued improvements in each of the six measures.**

HEDIS® COMPREHENSIVE DIABETES CARE MEASURES

	Diabetes eye exam performed	LDL-C screening performed	LDL-C control (<130 mg/dl)	Nephropathy monitoring	One or more A1c test	A1c poor control (>9.5%) ❖
Baseline, HEDIS® 2000 (CY 1999 data)	47.2%	75.2%	42.7%	22.4%	79.7%	47.5% ❖
HEDIS® 2001 (CY 2000 data)	54.5%	77.5%	45.7%	31.8%	83.7%	36.5% ❖
HEDIS® 2002 (CY 2001 data)	60.4%	82.3%	55.6%	49.5%	85.7%	27.4% ❖
HEDIS® 2003 (CY 2002 data)	60.8%	89.5%	66.2%	56.1%	89.2%	21.6% ❖

❖ Lower percent desired

HEDIS® Comprehensive Diabetes Care Measures



ONGOING CHALLENGES

Continuing challenges for this HMO are:

- Maintaining ongoing efforts necessary to clarify diagnosis by contacting newly identified member with diabetes (through claims) by letter to verify the diagnosis and to notify the member of benefits and guidelines for follow up care.
- Keeping members' updated/informed of benefits that are available but not being used, such as the retinal eye exam.
- Enhancing the clinical guideline adherence through ongoing chart audit (e.g., foot exam rate, weight, and height).
- Identifying the correct PCP for members, especially in clinics that have residents. If the Case Manager has not talked to the member or actually viewed their chart, claims will list the supervising doctor and not the resident.

A Diabetic Care Center opened that has an on-site podiatrist, dietician (CDE), diabetic educator, optometrist, pharmacist, PCP, and durable medical equipment. Originally the center was open one day a week, however, due to an overwhelming positive response, it is now open two days a week.

LESSONS LEARNED
• A comprehensive diabetes database is crucial to target interventions to members in need of services and to provide regular communication and educational reinforcement on good diabetes management.
• Continuing availability of recent clinical and laboratory data is essential for facilitating proactive care.
• Targeted mailings to high-risk members with diabetes are more effective and efficient than mass mailings to all members with diabetes.
• Integrated strategies targeting all sectors (members, providers, and systems) are the most successful.
• Case management services are extremely beneficial for enhancing members' diabetes self-care skills.

TOOLS INCLUDED WITH THIS SUMMARY

#1: Case Management Questionnaire
#2: Case Management Assessment Form
#3: Diabetes Health Management Program Survey

TOOL #1

Diabetic Quality Case Management Questionnaire/Assessment Form

Name_____ Member #_____
Phone # _____ PCP _____
96
Last Retinal Eye Exam _____**
****(If within the last 12 months skip question v)**

Last recorded A1C (date and level)_____
Date and time of call:_____

A. Assessment

Good Morning/Afternoon/Evening. Is Mr. (s) (Member Name) @ home. I am calling on behalf of XX Health Plan, Quality Health Management Department, may I speak with him/her, if not when would be a good time to call again?

_____

i. How is your Diabetes doing? _____

ii. Are you a newly diagnosed DM?_____

iii. Have you seen your doctor in the last 3 months?

Yes_____ Was it a routine check up or were you having problems? _____

_____

No_____ Will you call your doctor this week and schedule an appointment?

Yes _____ **No**_____

(Educated member about the importance of quarterly checkups. Yes__ No__)

iv. When you saw the doctor last time did they check you feet?

Yes ___ (What did they find?)_____

No ___

Do you check your feet? Yes__ No__ What do you check for on your feet? _____

_____

(Provided additional information for diabetic foot assessment. Yes__ No__)

(Skip this question if it is already done within the last 12 months)

v. Have you had a retinal (dilated) eye exam this year?

Yes____ When was it done? _____

Did you request a copy be sent to your primary doctor?

Yes_____ No_____

(Educated member on the importance of this information getting to primary doctor. Yes__ No__)

No____ Will you call this week and schedule an eye exam? Yes___ No___

(Educated member about the benefits of a yearly retinal eye exam. Yes__ No__)

vi. Have you had your HgbA1c checked recently?

Yes____ When_____ (What was your level)_____

No_____ Are you planning on having it checked? If so when. _____

(Educated member on the importance of this test. Yes__ No__)

vii. Have you been checking your blood sugar at home?

Yes____ How often_____ What are your readings _____

_____

No_____ Does your Doctor recommend that you check them? __ _____

Is there a reason that you don't check them? _____

_____

(Educated member on the importance of home blood glucose testing. Yes__ No__)

viii. Have your medicines been changed in the last three months?

Yes (How)_____

No_____

(Educated member on the importance of following doctor's medication regime. Yes__ No__)

ix. Have you had any other changes that have affected your diabetes?

Yes____ (Medical, Health, Environmental, Social?) _____

_____

No_____

(Provided appropriate education to member regarding above. Yes__ No__)

X. Do you smoke? Yes___ (would you like smoking cessation information sent to you? yes____ no____)

(Member informed about pharmacy benefits available for smoking cessation yes__ no___)

No____

XI. Do you have any questions or concerns? _____

_____

_____

(Provided appropriate education to member regarding above. Yes__ No__)

XII. May we call again?

Yes____ Our next call will be in about 3 months.

No_____ (why not?)_____

If we made changes and improvements to our call process could we call you again? Yes___ No___

****What personal health benefits would you like to gain from our calls?

_____

_____

(Educated member on the purpose of our health calls. Yes__ No__)

Comments/issues regarding call: _____

_____

_____

_____

Completed by XX -Disease Case Management Coordinator

Member continues in Level II Case Management	Yes _____	No _____
Member moves to Level I Case Management	Yes_____	No _____

TOOL #2

XX Health Plan
Diabetic Health Case Management Form

Member Name_____
Member Number_____
PCP_____

1. Assessment

a. Diabetic Quality Case Management Questionnaire / Assessment Form completed on _____

b. Issues identified for case management intervention
   1._____
   2._____
   3._____
   4._____
   5._____
   6._____

2. Planning

Objectives:_____
_____
_____
_____

Goal:_____
Actions:_____
_____
_____
_____
Time-Specific:_____

Goal:_____
Actions:_____
_____
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_____
Time-Specific:_____

Goal:_____
Actions:_____

Time-Specific:_____

Goal:_____
Actions:_____

Time-Specific:_____

Goal:_____
Actions:_____

Time-Specific:_____

Goal:_____
Actions:_____

Time-Specific:_____

3. Implementation

Documentation of the process of executing the specific case management activities / interventions to accomplish the established goals:

4. Coordination

TOOL #2 - continued

Documentation of organizing, securing, integrating and/or modifying resources:

5. Monitoring

Date	Contact	Effectiveness of actions / services

HbgA1C

Date	Value	Date	Value

TOOL #2 - continued

6. Evaluation

Documentation of Reassessment, effectiveness and modification of plan

Date:_____
Progress toward goal:_____

Action:_____

Time-Specific:_____

Date:_____
Progress toward goal:_____

Action:_____

Time-Specific:_____

Date:_____
Progress toward goal:_____

Action:_____

Time-Specific:_____

Date:_____
Progress toward goal:_____

Action:_____

Time-Specific:_____

Date:_____
Progress toward goal:_____

Action:_____

TOOL #2 - continued

Time-Specific:_____

Date:_____
Progress toward goal:_____
_____
_____

Action:_____
_____
_____

Time-Specific:_____

Level I Case Management

Date: _____
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Level II Case Management

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TOOL #3

Diabetes Health Management Program Survey

(Add logo and address of health plan)

This survey rates the services provided by our Diabetes Health Management Program staff. It helps us to see what we can do differently to improve our program. Your opinion is a very important part of this process. Please take a few moments to complete this survey. Thanks you in advance for your participation. Please mail the completed survey in the self-addressed, stamped envelope provided by (insert date).

	Strongly agree 1	Agree 2	Disagree 3	Strongly disagree 4
1. The phone calls from the Diabetes Health Management nurse have helped me manage my diabetes.	1	2	3	4
2. The phone calls helped to remind me to make appointments for my yearly retinal eye exam.	1	2	3	4
3. The phone calls encourages me to get my lab work (A1c) done more frequently than I had in the past.	1	2	3	4
4. The Diabetes Health Management nurse was able to answer my questions about diabetes.	1	2	3	4
5. The educational materials that were sent to me were very helpful, easy to understand, and helped me manage my diabetes.	1	2	3	4
6. I have had the opportunity to attend one of the diabetes educational seminars offered by (insert name of health plan). If yes, list the one(s) you attended?	1	2	3	4

We appreciate your comments:

CASE STUDY #6

HMO BACKGROUND

- This HMO documented the national burden of diabetes and researched current literature (e.g., The Diabetes Control and Complications Trial, etc.) that revealed that intensive therapy could delay the onset diabetes-related complications and slow their progression.
- The HMO found that diabetes was one of its top ambulatory diagnoses and that a wide range of complications affected its members with diabetes.
- The HMO made the decision to establish a cross-departmental Clinical Workgroup to minimize these complications through encouraging and monitoring compliance with established treatment standards. The Clinical Workgroup launched the Diabetes Care Management Program in June of 1996. The workgroup, led by the Pharmacy Director, included the Medial Director, two external community-based certified diabetes educators, and representatives from Case Management, Care Management, Data Analysis, Claims, and Information Systems. The workgroup reviewed available data and brainstormed to identify barriers to improving diabetes measures.
- The workgroup conducted focus groups with primary care providers, endocrinologists, diabetes educators, pharmacists, and nutritionists to identify barriers that were preventing good control and strategies to overcome them.
- The Workgroup concluded that reminder interventions with targeted mailings to members and their physicians should be used as the foundation for their Diabetes Care Management Program.
- The HMO worked to educate members and physicians about current diabetes treatment recommendations. Case management interventions were designed for high-risk members with diabetes. Systems were developed to automatically generate reminders to members (and their physicians) who were not in compliance with the American Diabetes Association's standards of care (e.g., A1c tests, lipid panels, and eye exams).
- The Workgroup continued to improve its Diabetes Care Management Program and had several years' experience in monitoring diabetes care prior to the introduction of the HEDIS® Comprehensive Diabetes Care measures that the National Committee on Quality Assurance required accredited health plans to report in 1999.

METHODOLOGY

The HMO used HEDIS® 2000 methodology to assess its baseline data for the six Comprehensive Diabetes Care Measures. eye exam performed, LDL-C screening performed, LDL-C control, nephropathy monitoring, A1c testing, and A1c poor control.

BASELINE HEDIS® COMPREHENSIVE DIABETES CARE MEASURES

	Diabetes eye exam performed	LDL-C screening performed	LDL-C control (<130 mg/dl)	Nephropathy monitoring	One or more A1c tests	A1c poor control (>9.5%) ❖
Baseline, HEDIS® 2000 (CY 1999 data)	43.1%	74.9%	37.5%	41.8%	84.7%	34.8% ❖

❖ Lower percent desired

BASELINE BARRIER ANALYSIS

The HMO's Quality Improvement Council (QIC), comprised of physicians from primary care and other physician specialties from the plan's network and members of the Quality improvement staff, reviewed the HEDIS® results and approved measures for the next year's work-plan. The Diabetes Workgroup, comprised of representatives from Care Coordination, Pharmacy, Quality Improvement, HEDIS and

Disease Management, conducted further analysis. The Diabetes Workgroup identified the following barriers:

- Physicians lacked knowledge and/or experience in the treatment of diabetes that was based on clinical practice guidelines and research that supported aggressive therapy.
- Physician failed to consistently provide care that was in compliance with recommended American Diabetes Association's (ADA) Clinical Practice Guidelines.
- Physicians and members lacked understanding of the HMOs benefit coverage for diabetic services.
- Physician offices lacked resources to provide diabetes education.
- Members lacked a basic knowledge and understanding of diabetes and its complications.
- Members lacked knowledge of the importance of recommendations for diabetes tests, early detection, and regular treatment.

BASELINE INITIAL INTERVENTIONS

Interventions were **broad-based** and comprehensive.

- A **Diabetic Reminder Program** was implemented to improve organizational tools and provide reports to help physicians monitor care. This included physician mailings that explained the program and listed their **members who were out of compliance** with recommendations for screening according to the ADA's Guidelines. The mailings informed the physicians that diabetes tests (e.g., diabetic eye exams, A1c, LDL-C, and microalbuminuria testing) were **covered benefits** and that **diabetes education classes** were available in the community [**tool #1**].
- The HMO sent **periodic newsletters and publications** with articles about diabetes management **to physicians** help them understand glycemic control and risk factor reduction. The plan also **distributed** the ADA's Clinical Practice **Guidelines** and **annual HEDIS® results** to the physicians.
- Since changes were coming to the Eye Network, the HMO did not develop specific eye exam interventions.
- The HMO developed a **Diabetes Focused Flow Sheet** to be used as both a guide and documentation tool during patient care.
- The HMO sent mailings to members about **tests that were due**, information about the **Diabetes Care Management Program**, **benefit coverage**, and **diabetes education** classes that were available in the community [**tools #2, #3, #4**].
- An **Eye Care Survey** [**tool #5**] was sent to members with diabetes.
- Diabetes classes were offered twice a year, including a basic and advanced course.
- The HMO held an Educational Health Fair on Diabetes with screenings for designated diabetes tests and mailed the results to each member's primary care physician.

RE-MEASUREMENT #1 data using HEDIS® 2001 methodology revealed improvements in four of the six Comprehensive Diabetes Care Measures: eye exams, LDL-C screening, LDL-C control, and nephropathy monitoring. The HMO believed that the extensive interventions in place had a positive impact. The A1c testing rate remained about the same and the rate for A1c poor control (>9.5%) increased.

HEDIS® COMPREHENSIVE DIABETES CARE MEASURES

	Diabetes eye exam performed	LDL-C screening performed	LDL-C control (<130 mg/dl)	Nephropathy monitoring	One or more A1c test	A1c poor control (>9.5%) ❖
Baseline, HEDIS® 2000 (CY 1999 data)	43.1%	74.9%	37.5%	41.8%	84.7%	34.8% ❖
HEDIS® 2001 (CY 2000 data)	49.4%	76.6%	43.6%	56%	84.2%	38.9% ❖

❖ Lower percent desired

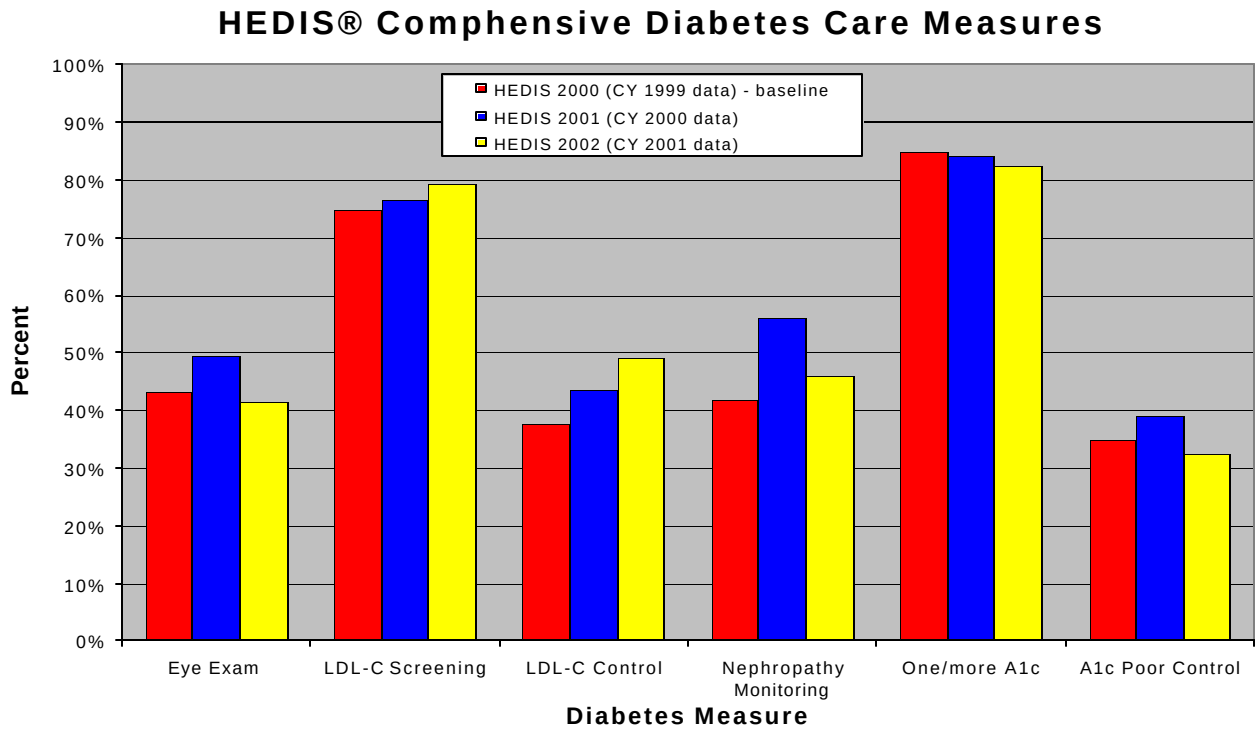
RE-MEASUREMENT #1 BARRIER ANALYSIS by the Diabetes Workgroup did not identify any new barriers **or interventions**. The HMO continued the interventions that were already in place**.**

RE-MEASUREMENT #2 revealed improvements in the rates for A1c poor control, LDL-C screening, and LDL-C control measures. Eye exams and A1c testing rates decreased from the baseline and from re-measurement #1. Nephropathy monitoring decreased from re-measurement #1.

HEDIS® COMPREHENSIVE DIABETES CARE MEASURES

	Diabetes eye exam performed	LDL-C screening performed	LDL-C control (<130 mg/dl)	Nephropathy monitoring	One or more A1c test	A1c poor control (>9.5%) ❖
Baseline, HEDIS® 2000 (CY 1999 data)	43.1%	74.9%	37.5%	41.8%	84.7%	34.8% ❖
HEDIS® 2001 (CY 2000 data)	49.4%	76.6%	43.6%	56%	84.2%	38.9% ❖
HEDIS® 2002 (CY 2001 data)	41.3%	79.1%	49%	45.8%	82.4%	32.4% ❖

❖ Lower percent desired



RE-MEASUREMENT #2 BARRIER ANALYSIS

The Diabetes Workgroup reviewed the data and determined the following new barriers:

- The nurses conducting the medical record data collection reviews were unclear about the HEDIS® criteria for nephropathy monitoring.
- Some HMO members hadn't established a relationship with a PCP to monitor their care. Even though it was better to have a PCP, the HMO did not mandate members to select one.

INTERVENTIONS SUBSEQUENT TO RE-MEASUREMENT #2

- The HMO continued its interventions that were already in place.

- The HMO clarified criteria for assessing compliance with nephropathy monitoring for the nurses doing the medical record data collection reviews.
- The HMO encouraged members to establish a relationship with a PCP.

ONGOING CHALLENGES

This HMO's national corporate office implements the quarterly patient reminder program and the physician clinical profiles. Due to this change, the local HMO did not have sufficient time to evaluate the impact of the programs implemented in the past. This is the first year that clinical profiles have been implemented. Clinical profiles provide the physician's individual performance for each measure and identify members who potentially did not receive an indicated treatment for that reporting period. Physicians are asked to respond with an explanation as to why this data may not be captured. Reason codes include: patient non-compliance, service is contraindicated, patient does not have the condition, the patient has received the service, and other.

One limitation for the diabetes database is that it was built mainly using HEDIS® criteria, therefore, it's not a registry that includes all of the HMO's members with diabetes. The HMO strives to improve the data management system to ensure up-to-date, accurate information. It's now moving to use "Predictive Model" software that can help rank risk to identify members for case management. The software assesses demographic, outpatient data, claims, emergency room visits, medications, etc. to identify high-risk members. The care coordinators contact the high-risk members to provide support and assistance and can refer them to case management services, if needed, in a timely manner.

The HMO believes that its ongoing overall disease management efforts to track members and an ongoing emphasis on education and clarification of benefit coverage will continue to contribute to improved health.

LESSONS LEARNED
• Offices with electronic medical records and reminder systems had better rates of compliance with recommendations.
• Comprehensive databases and efficient disease management programs are powerful tools for improving care.
• A valid evaluation of disease management initiatives needs several years to assess its effects over time.
• Interventions to improve some measures take longer than others (e.g., LDL-C levels or nephropathy monitoring compared to A1c levels).
• Case management is a crucial service to help improve the status of high-risk members with diabetes.
• HMO providers and members need ongoing clarification regarding benefit coverage.
• Although diabetes education classes were offered, the majority attending were Medicare members and several repeated the classes. In the hope to attract more Commercial members, evening classes were going to be scheduled but this intervention was discontinued in the middle of 2002.

TOOLS INCLUDED WITH THIS SUMMARY

#1: Physician Report Sample Letter (compliance and benefit coverage)
#2: Member Reminder Letter
#3: Member A1C Reminder Letter
#4: Member Covered Services Sample Letter
#5: Eye Care Survey

TOOL #1

Date

XX, M.D.

Dear Dr. XX,

XX Health Plan is committed to providing you with information that can assist you in managing those of your patients with diabetes. Our Diabetes Wellness Management Program can augment your practice by providing patients with education about their disease and information on the importance of self-management.

As outlined in the American Diabetes Association Clinical Practice Recommendations, we encourage you to do everything you can to provide the medical care required for your patients with diabetes.

Our project team used the above standards to develop monitoring/testing goals for individuals with diabetes. As part of our continuous quality improvement, we are tracking utilization of the following covered benefits:

- A1c test within the past 6 months
- Lipid panel within the past year for diabetics > 18 years of age
- Dilated eye exam within the past year

A recent check of our records indicates that some of your patients may not have met one or more of the above goals. We will mail a reminder to these patients to encourage them to comply with these goals. At the end of this letter is the list of your patients who do not have a claim paid through XX date that indicates they have met one or more of these goals.

The Diabetes Wellness Management Program has gone well. We identified approximately xxx individuals and sent letters encouraging use of the benefits available to them. These benefits include:

- Coverage of blood glucose testing materials
- FREE diabetes education seminars presented by area health professionals
- Coverage for diabetes education through a participating provider

We thank you for your efforts in helping your patients with diabetes meet the recommended standards. If you have any questions or concerns, please contact XX Disease Management Program Leader at xxx-xxx-xxxx.

Sincerely,

Senior Medical Director

TOOL #1 - Continued

Patient Name	Date of Birth	Utilization	Last Date of Service
.			
.			
.			
.			
.			
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.			
.			

TOOL #2

Date

Dear XX,

Controlling your blood sugar is important. This lowers your risk for serious health problems. You make choices every day about your diabetes (like watching what you eat and testing your blood sugar). You work hard to control your diabetes. We want to support you and your doctor to help you take control of your diabetes.

We urge you to do home blood sugar testing, to have a yearly eye exam, and to have these lab tests: glycosylated hemoglobin, lipid panel, and urinalysis. These tests are all very important.

Our records show that you have not had a test for glycosylated hemoglobin in the last six months. These are covered by XX Health Plan.

A glycosylated hemoglobin blood test is also called the A1c test. This test tells you how well your blood sugar has been controlled over the past four months. Good blood sugar control lowers your risk for serious diabetes-related problems.

You do not have to fast for this test. Please call your doctor to talk about getting a glycosylated hemoglobin test.

Controlling diabetes is not easy. It takes time and effort. Regular testing and help from your doctor can lower the chance of diabetes problems. If you have any questions, please call Customer Services at xxx-xxx-xxxx. The TDD number is xxx-xxx-xxxx.

Sincerely,

Senior Medical Director

Cc: M.D.

Date

TOOL #3

(Name, address)

Dear Ms.

Time passes so quickly. Sometimes it seems that there are never enough hours in a day to get everything done. But when it comes to your health, it's important to find the time to take care of yourself – particularly when you have a chronic condition such as diabetes.

This letter is a gentle reminder encouraging you to take advantage of your covered benefits related to diabetes. Several months ago, we wrote you describing the various benefits available to you and how utilizing them can help you stay healthy with diabetes.

To date, however, our claims database searched paid claims through (insert date) and showed no claim for:

- A glycosylated hemoglobin test. This test serves as a "three month report card" to see if your present therapy is working.

We encourage you to call your physician today to discuss your need for getting the above test performed and if we can be if any help, please call Customer Services at xxx-xxx-xxxx. The TDD number is xxx-xxx-xxxx.

We support your efforts to maintain optimum health, and we strongly encourage you to take full advantage of your covered benefits related to diabetes.

Sincerely,

Senior Medical Director

Cc: M.D.

Date

TOOL #4

(Name, address)

Dear Mr.

Our records show that you **might** have diabetes. Diabetes is a serious condition. Proper care is very important. It takes more than medicine to control your diabetes. You must take action to stay healthy. We want to help you take control of your diabetes.

We urge you to use these services. They are covered by XX Health Plan.

- **Home Blood Glucose Monitoring**
  XX Health Plan covers the cost of monitoring strips for testing blood sugar. Your doctor will tell you how often you should do the test. Talk to your doctor about doing this important test if you are not doing it now.

- **Glycosylated Hemoglobin Test**
  This test should be done at least twice a year. It tells how well your diabetes is controlled over four months. Talk to your doctor about ordering this test for you.

- **Lipid Panel Test**
  Blood cholesterol is related to heart disease. People with diabetes die from heart disease or have a stroke more often than people without diabetes. Talk to your doctor about your risk factors. Blood cholesterol should be checked at least once a year for adults with diabetes. Talk to your doctor about ordering this test for you.

- **Complete Eye Examination**
  Forty percent of all blindness is caused by poorly controlled diabetes. Have your eyes checked each year for signs of diabetes-related eye problems. Talk about your eye care needs with your doctor.

- **Urinalysis**
  This lab test tells how well your kidneys work. Kidney disease is a serious problem that many people with diabetes develop. Ask your doctor if you should have this test.

Your doctor and other diabetes care experts can help you lower your risk of diabetes-related problems. Watch for more news about free programs and services to help you control your diabetes.

If you have any questions or feel you have received this letter in error, please contact Customer Services at xxx-xxx-xxxx. The TDD number is xxx-xxx-xxxx.

Sincerely,

Senior Medical Director

Cc: XX, M.D.

TOOL #5

Dear :

A review of our records indicates that you may have been diagnosed with diabetes. As your health plan, (name of XX plan) recognizes the seriousness of diabetes and the importance of proper treatment. Unlike some diseases, diabetes requires more than a prescription – it requires life-long treatment to maintain wellness. Our goal is to help you take maximum control of your diabetes.

Our records indicate that you did not receive a complete eye examination by a licensed eye care professional in 1999.

We would like to identify and remove any barriers that may exist to an annual eye exam for our members. Please take a few minutes to answer the following questions and return it in the enclosed postage paid envelope. Once we receive your completed survey, you will be entered into a drawing for one of 13 Target gift certificates.

Did you receive an eye exam in 1999 or 2000 by an eye care professional that we are not aware of? Please check one: ___ yes ___ no

If yes, please list:

a. The date of the exam_____

b. The name of the eye care professional that performed the exam_____

c. The location of the eye exam_____

d. Was the exam performed by: ____ Optometrist ___ Ophthalmologist ___ Unknown

If no, please indicate why?

___ I am not a diabetic.

___ I did not know it was a recommendation to receive an annual eye exam.

___ I knew it was a recommendation, but I did not feel it was important.

___ My primary care physician gave me an eye exam.

___ My primary care physician indicated it was not necessary.

___ I did not think it was a covered benefit.

___ Other, _____

We encourage you to use your health care benefits to monitor and maintain control of your diabetes. One of the many important recommended screenings for diabetes is a Complete Eye Exam by a licensed eye care professional (optometrist or ophthalmologist) on an annual basis. Forty percent of all cases of blindness are a result of poorly controlled diabetes. There are

treatments for this condition. These treatments along with your eyesight depend on early detection.

Thank you for completing this survey. If you have any questions, please call customer service at 1-800 –xxx-xxxx.

Sincerely,

Senior Medical Director